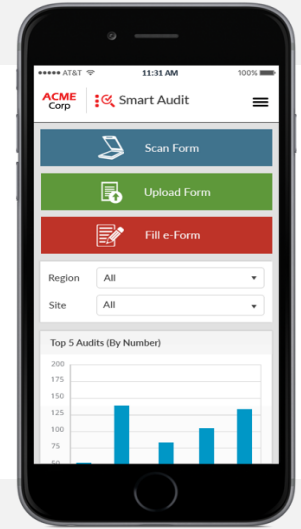
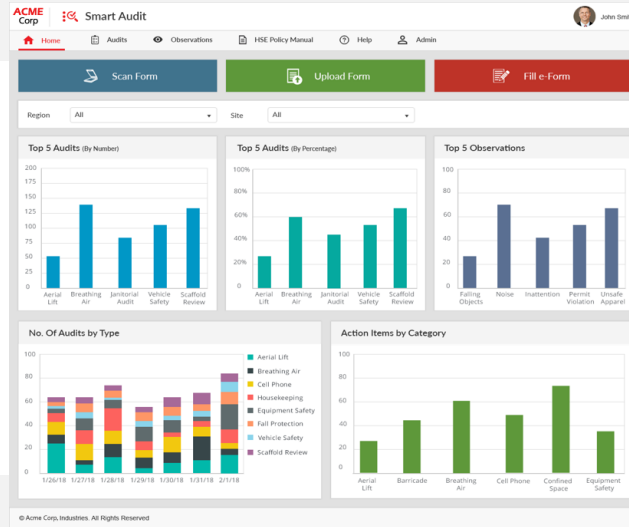


A construction firm drives operational excellence, and enhances employee experience using **Optical Character Recognition Scanning Solution built on Microsoft Azure**



The customer is one of the largest, most diversified U.S. based construction companies with more than 6,000 employee-owners. The company provides nearly every type of civil, commercial and industrial construction services. It prides itself in delivering exceptional service on large, highly complicated projects with emphasis on qualified teams and performance.

The Customer Challenge

The auditors of the company performed hundreds of audits every month. At the end of the day, the designated staff member of a job site interpreted all the forms and manually entered the data in the legacy system. Due to the massive volume of forms, and limited manpower, there were considerable delays in keeping the data up-to-date. Moreover, the legacy system did not have capabilities to provide the required insights to the executive team that was important for them to take the data-driven decisions to improve operational efficiency and safety.

The current system involved manual efforts in filling the forms resulting in errors and delays in entering the audit sheet, thereby reducing the overall productivity. The major challenges include:

- An outdated legacy system that stored audit data
- Lack of resources to save audit data resulting in delays
- Lack of structured and easily access to the audit data
- No actionable insights from the unstructured data

Consequently, the company was looking to automate the capturing of audit forms entered by their users into an Optical Character Recognition (OCR) scanning solution, to make the audit process efficient. The solution expected to allow filling of e-forms as well as upload of scanned forms, and interpret the handwritten text on the uploaded forms, and eventually, save the data in a database. As the audits were done onsite, both desktop and mobile versions of the application were required. The application is expected to work offline as most of the job sites did not have good network connectivity.

WinWire Solution

WinWire helped the company develop the **Optical Character Recognition (OCR) Scanning Solution** with web and mobile interfaces leveraging **Azure App Services** that allowed auditors to fill e-forms and upload the scanned or captured audit forms. The solution was designed to accommodate any new type of audit form dynamically without making many changes. Instead of building a form for each audit form, multiple forms were rendered based on database-driven configuration.

The OCR/ICR interpretation was achieved using third-party software, which involved configuration of each field of an audit form. The OCR scanning libraries were customized and exposed via APIs for use in future applications.

The application is widely accepted by auditors and other users of the company due to its **offline capability and user-friendly interface**, resulting in increased productivity. The application provides **real-time stats** related to audits. The reporting feature in the application provides **insights on safety and operational efficiency** enabling senior executives of the company to identify the issues much quicker and take right decisions.

The application is used at multiple job sites of the company resulting in increased employee experience and productivity.

The Business Value

- Enhanced employee productivity and experience
- Increased efficiency of auditing process
- Better insights for the executive team